

AMENDMENTS TO THE CLAIMS

1. – 3. (Canceled)

4. (Currently Amended) The co-culturing carrier according to ~~Claim 1~~ Claim 6, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an animal that is homogeneous or heterogeneous to the fertilized ovum.

5. (Previously Presented) The co-culturing carrier according to Claim 4, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an endometrium.

6. (Currently Amended) ~~The A co-culturing carrier according to Claim 1 for co-culturing with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom,~~ wherein the cell to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are pretreated with mitomycin C.

7. (Currently Amended) ~~The A co-culturing carrier according to Claim 3, for co-culturing with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom,~~ wherein the cell incorporated type three-dimensionally reconstructed tissue further comprises one or more extracellular matrix components and/or

one or more mesh networks, and wherein the extracellular matrix component is gelated.

8. (Currently Amended) The co-culturing carrier according to ~~Claim 3~~ Claim 6, wherein the mesh network is composed of one or more natural or synthetic threads and/or a woven mass thereof.

9. (Currently Amended) ~~The A co-culturing carrier according to Claim 3, for co-culturing with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom, wherein the cell incorporated type three-dimensionally reconstructed tissue further comprises one or more extracellular matrix components and/or one or more mesh networks, and~~ wherein the mesh network is bioabsorptive.

10. (Canceled)

11. (Currently Amended) The co-culturing carrier according to ~~Claim 2~~ Claim 20, wherein the cell incorporated type three-dimensionally reconstructed tissue further comprises one or more extracellular matrix components and/or one or more mesh networks.

12. (Previously Presented) The co-culturing carrier according to Claim 11, wherein the extracellular matrix component is gelated.

13. (Previously Presented) The co-culturing carrier according to Claim 11, wherein the mesh network is composed of one or more natural or synthetic threads and/or a woven mass thereof.

14. (Previously Presented) The co-culturing carrier according to Claim 11, wherein the mesh network is bioabsorptive.

15. (Previously Presented) The co-culturing carrier according to Claim 11, wherein

the one or more extracellular matrix components are type-I collagen.

16. (Previously Presented) The co-culturing carrier according to Claim 11, wherein the one or more mesh networks comprise gauze or cotton.

17. (Currently Amended) The method of culturing a fertilized ovum of an animal, comprising introducing the co-culturing carrier according to ~~Claim 2~~ Claim 20 into a culture vessel and culturing the fertilized ovum of an animal.

18. (Currently Amended) The co-culturing carrier according to ~~Claim 2~~ Claim 20, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an animal that is homogeneous or heterogeneous to the fertilized ovum.

19. (Previously Presented) The co-culturing carrier according to Claim 18, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an endometrium.

20. (Currently Amended) ~~The~~ A co-culturing carrier according to Claim 2, with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom, wherein the cell incorporated type three-dimensionally reconstructed tissue is tissue/organ engineered from one or more biological materials selected from the group consisting of cells, tissues, and organs, wherein said one or more biological materials are derived from the same animal or a different animal from which the fertilized ovum is obtained and wherein the cells derived from animals is selected from the group consisting of endometrial epithelial cells and stromal cells.

21. (Currently Amended) The co-culturing carrier according to ~~Claim 2~~ Claim 20, wherein the cells derived from animals is selected from the group consisting of bovine endometrial epithelial cells and bovine stromal cells.

22. (Currently Amended) ~~The A~~ co-culturing carrier ~~according to Claim 3~~, for co-culturing with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom, wherein the cell incorporated type three-dimensionally reconstructed tissue further comprises one or more extracellular matrix components and/or one or more mesh networks, and wherein the one or more extracellular matrix components are type-I collagen.

23. (Currently Amended) ~~The A~~ co-culturing carrier ~~according to Claim 3~~, for co-culturing with a fertilized ovum of an animal comprising a cell incorporated type three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum, wherein the tissue can substitute a function of endometrial tissue to implant a fertilized ovum and support subsequent growth therefrom, wherein the cell incorporated type three-dimensionally reconstructed tissue further comprises one or more extracellular matrix components and/or one or more mesh networks, and wherein the one or more mesh networks comprise gauze or cotton.

24. – 26. (Canceled)

27. (Previously Presented) The method of culturing a fertilized ovum of an animal, comprising introducing the co-culturing carrier according to Claim 6 into a culture vessel and

culturing the fertilized ovum of an animal.

28. (Previously Presented) The method of culturing a fertilized ovum of an animal, comprising introducing the co-culturing carrier according to Claim 7 into a culture vessel and culturing the fertilized ovum of an animal.

29. (Currently Amended) ~~The A~~ co-culturing carrier ~~according to Claim 8, for~~
co-culturing with a fertilized ovum of an animal comprising a cell incorporated type
three-dimensionally reconstructed tissue for co-culturing the fertilized ovum of an
animal for the purpose of adhesion and three-dimensional growth of the fertilized ovum,
wherein the tissue can substitute a function of endometrial tissue to implant a fertilized
ovum and support subsequent growth therefrom, wherein the cell incorporated type
three-dimensionally reconstructed tissue further comprises one or more extracellular
matrix components and/or one or more mesh networks, wherein the mesh network is
composed of one or more natural or synthetic threads and/or a woven mass thereof, and
wherein the mesh network is bioabsorptive.

30. (Currently Amended) The method of culturing a fertilized ovum of an animal, comprising introducing the co-culturing carrier according to ~~Claim 9~~ Claim 29 into a culture vessel and culturing the fertilized ovum of an animal.

31. (Previously Presented) The method of culturing a fertilized ovum of an animal, comprising introducing the co-culturing carrier according to Claim 9 into a culture vessel and culturing the fertilized ovum of an animal.

32. (New) The co-culturing carrier according to Claim 7, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an animal that is homogeneous or heterogeneous to the fertilized ovum.

33. (New) The co-culturing carrier according Claim 32, wherein the cells to be

incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an endometrium.

34. (New) The co-culturing carrier according to Claim 9, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an animal that is homogeneous or heterogeneous to the fertilized ovum.

35. (New) The co-culturing carrier according Claim 34, wherein the cells to be incorporated in the cell incorporated type three-dimensionally reconstructed tissue are cells derived from an endometrium.

36. (New) The co-culturing carrier according to Claim 7, wherein the mesh network is composed of one or more natural or synthetic threads and/or a woven mass thereof.

SUPPORT FOR THE AMENDMENTS

Claims 1-3, 10, and 24-26 have been canceled.

Claims 4, 6-9, 11, 17, 18, 20-23, 29, and 30 have been amended.

Claims 32-36 have been added.

The amendment of Claims 4, 6-9, 11, 17, 18, 20-23, 29, and 30 are supported by the previously pending claims. Claims 4 and 8 have been amended to depend from allowable Claim 6. The amendment of Claim 6 is supported by previously pending Claims 1 and 6. The amendment of Claim 7 is supported by previously pending Claims 1, 3, and 7. The amendment of Claim 9 is supported by previously pending Claims 1, 3, and 9. Claims 11, 17, 18, and 21 have been amended to depend from allowable Claim 20. The amendment of Claim 20 is supported by previously pending Claims 1, 2, and 20. The amendment of Claim 22 is supported by previously pending Claims 1, 3, and 22. The amendment of Claim 23 is supported by previously pending Claims 1, 3, and 23. The amendment of Claim 29 is supported by previously pending Claims 1, 3, 8, and 29. Claim 30 has been amended to depend from allowable Claim 29.

No new matter is believed to have been introduced by virtue of the amendment presented herein.